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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,779	07/12/2001	John Border	PD-201023	1490

7590 03/25/2005

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EXAMINER

CHANG, JUNGWON

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/903,779	Applicant(s) BORDER ET AL.	
	Examiner Jungwon Chang	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/01/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-40 are presented for examination.
2. Figures 18 and 19 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).
3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "500 (communication system, fig. 5)" as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). (Please see specification on pages 23 and 25, sections [88], [93], [94]).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 1-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Doviak et al. (US 6,418,324), hereinafter referred to as Doviak.

6. As to claims 1, 11 and 21, Doviak discloses a method for routing information (routing table; 204, fig. 30; col. 52, lines 53-59) in a communication system (fig. 1) that includes a platform (col. 9, lines 61-67) and a path selection/activation apparatus (200, fig. 30; col. 1, lines 23-27 and 33-37; col. 2, lines 28-30) configured to perform a plurality of performance enhancing functions (providing reliability transport of data; col. 1, lines 18-27 and 30-47; col. 2, lines 26-43), the method comprising:

receiving the information from the platform (col. 5, lines 53-59; col. 10, lines 6-24; col. 11, lines 8-12; col. 26, lines 6-19) and receiving at least one of path selection parameters (col. 37, lines 15-31) and path activation parameters (network speed, interface availability, destination network, time of day, type of data, packet level; col. 33, line 57 – col. 34, line 3; col. 35, lines 37-44), wherein the path selection/activation apparatus maintains a profile (set of preference metrics; col. 1, lines 23-27) that contains the at least one of the path selection and path activation parameters (314, fig. 33; col. 33, line 57 – col. 34, line 3; col. 34, lines 56-62; col. 35, lines 37-44; building table entries such as IP address of the destination, assigned port, channel priorities; col. 36, lines 41-46; col. 37, lines 1-14); and

routing the information in accordance with the profile (col. 29, lines 48-53; col. 33, line 57 – col. 34, line 3; col. 38, lines 49-56; col. 39, lines 20-25).

7. As to claim 2, Doviak discloses determining a path that the information takes to reach its destination based on the profile (selecting alternate communication paths based upon a set of preference metrics; col. 1, lines 23-27 and 33-37; col. 2, lines 28-30).

8. As to claim 3, Doviak discloses determining the path by applying path selection rules (fig. 35; col. 37, lines 15-31).

9. As to claim 4, Doviak discloses wherein the path selection rules permit failure to N alternative paths (fig. 36; if the previous channel is not available; col. 37, lines 17-19; if the next channel is not available; col. 37, lines 43-46; present channel is not available; col. 38, lines 11-18), where N is an integer greater than one (alternative channel is more than one; fig. 35).

10. As to claim 5, Doviak discloses determining whether the information should be forwarded using an alternate path (figs. 35; col. 37, lines 15-31) and determining which portions of the information should be dropped when one or more paths fail (information periodically updating based on the status of and events; col. 28, lines 46-65).

11. As to claim 6, Doviak discloses receiving the at least one of path selection parameters and path activation parameters as a data structure from the platform (col. 37, lines 15-31; network speed, interface availability, destination network, time of day,

type of data, packet level; col. 33, line 57 – col. 34, line 3; col. 35, lines 37-44).

12. As to claim 7, Doviak discloses receiving at least one of path selection parameters and path activation parameters from the platform at start-up (power up; col. 45-57) or when the platform receives updated path selection or path activation parameters (information periodically updating; col. 28, lines 46-65).

13. As to claim 8, Doviak discloses applying rules to ensure all packets of information related to the common traffic flow take a common path (common traffic channel which is a logical channel; col. 9, lines 20-29).

14. As to claim 9, Doviak discloses applying rules which allow packets of information from the same traffic flow to travel via different paths (alternative paths; col. 1, lines 33-37).

15. As to claim 10, Doviak discloses applying multiple path selection or path activation rules using Boolean operators (If true, Then; col. 37, lines 15-31).

16. As to claim 31, it is rejected for the same reasons set forth in claims 1, 11 and 21 above. In addition, Doviak discloses computer-readable medium carrying one or more sequences of one or more instructions for routing information in a communication system (computer readable medium storing a computer program for routing data

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between devices over a networks; claims 45 and 59; col. 43, lines 32-43; col. 44, lines 19-49).

17. As to claims 12, 22 and 32, they are rejected for the same reasons set forth in claim 2 above.

18. As to claims 13, 23 and 33, they are rejected for the same reasons set forth in claim 3 above.

19. As to claims 14, 24 and 34, they are rejected for the same reasons set forth in claim 4 above.

20. As to claims 15, 25 and 35, they are rejected for the same reasons set forth in claim 5 above.

21. As to claim 16, 26 and 36, they are rejected for the same reasons set forth in claim 6 above.

22. As to claims 17, 27 and 37, they are rejected for the same reasons set forth in claim 7 above.

23. As to claims 18, 28 and 38, they are rejected for the same reasons set forth in

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claim 8 above.

24. As to claims 19, 29 and 39, they are rejected for the same reasons set forth in claim 9 above.

25. As to claims 20, 30, and 40, they are rejected for the same reasons set forth in claim 10 above.

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Doviak et al, 2005/0002419, Monachello et al, patent 6,748,439, Drwiega et al, patent 6,842,463, Takagi et al, patent 6,272,148, Border et al, 2002/0071436, Ricciulli, 2002/0018449 disclose method and system for selecting an optimized network path based on real-time measurement of costs associated with the alternative paths, in response to a user request for transmission of message to a destination on the network. Ariel Orda, "Routing with End-to-End QoS Guarantees in Broadband Networks", IEEE Vol. 7, No. 3, June 1999.

Srinivasan et al, "A Constant-Factor Approximation Algorithm for Packet Routing, and Balancing Local vs. Global Criteria", ACM, 1996.

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27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jungwon Chang whose telephone number is 571-272-3960. The examiner can normally be reached on 9:30-6:00 (Monday-Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'JWC' followed by 'Jungwon' in a cursive script.

JWC
March 11, 2005